

VIDEO COPY PROTECTION PROCESS ENHANCEMENT
TO INTRODUCE HORIZONTAL AND VERTICAL
PICTURE DISTORTIONS

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ABSTRACT

10 Enhancements to a video anticopying process that
causes an abnormally low amplitude video signal to be
recorded on an illegal copy. The enhancements in one
version introduce into the overscan portion of the
television picture, just prior to the horizontal or
15 vertical sync signals but in active video, a negative
going waveform that appears to the television receiver or
videotape recorder to be a sync signal, thereby causing an
early horizontal or vertical retrace. One version
provides (in the right overscan portion of the picture), a
20 checker pattern of alternating gray and black areas which
causes the TV set on which the illegal copy is played to
horizontally retrace earlier than normal in selected lines
with a consequential horizontal shift of the picture
information on those lines. This substantially degrades
25 picture viewability. In another version a gray pattern at
the bottom overscan portion of the picture causes vertical
picture instability. In another version selected
horizontal sync signals are narrowed, causing irregular
vertical retraces. Also provided is apparatus for
30 removing or attenuating these enhancements from the video
signal, to allow copying.

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